

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

1-28. (Canceled)

29. (Currently Amended) A nucleotide array for detecting and/or identifying the genotype of a human papilloma virus contained in a biological sample comprising a solid carrier having a surface and at least one first oligonucleotide or nucleic acid molecule bound to the carrier surface that is suitable for use as a probe for testing the HPV gene E1 or a portion thereof to detect and/or identify a genital human HPV genotype selected from the group consisting of:

- a) HPV genotype-specific oligonucleotides having the nucleotide sequences recited in SEQ ID nos. ~~8 to 135~~ 8-9, 11, 14, 18-20, 23-24, 30, 32-34, 36-39, 41-43, 45-46, 49, 53, 55-58, 61-66, 69, 72, 74, 81, 87, 92, 95-96, 100-101, 105, 107-108, 110-114, 116-118, 122, 124-126, 128, 130, 132, 133, and 135,
- b) oligonucleotides that have a nucleotide sequence that is mutated relative to one of the oligonucleotides of a), namely, a deletion or addition of 1 to 10 nucleotides or a substitution of 1 to 3 nucleotides in one of the nucleotide sequences recited in a),
- c) oligonucleotides that have a nucleotide sequence that is complementary over its entire length to the nucleotide sequence of an oligonucleotide of a) or b) ,
- d) nucleic acid molecules comprising at least one region that has one of the nucleotide sequences recited in a) to c) and one or more additional regions having a total length of at least one nucleotide, and
- e) mixtures of the oligonucleotides of a) to c) and/or of the nucleic acid molecules of d).

30. (Previously Presented) The nucleotide array of Claim 29, wherein the carrier is platelet-shaped, in the form of a microscope slide, or is platelet-shaped with depressions as a chamber slide or as a microtiter plate.

31.-69. (Canceled)

70. (Previously Presented) The nucleotide array of Claim 29, wherein the first oligonucleotides or nucleic acid molecules on the surface of the carrier are located in a defined analysis area.

71. (Previously Presented) The nucleotide array of Claim 30, wherein the first oligonucleotides or nucleic acid molecules on the surface of the carrier are located in a defined analysis area.

72. (Previously Presented) The nucleotide array of Claims 29, wherein the surface of the carrier has a control area.

73. (Previously Presented) The nucleotide array of Claims 30, wherein the surface of the carrier has a control area.

74. (Previously Presented) The nucleotide array of Claims 70, wherein the surface of the carrier has a control area.

75. (Previously Presented) The nucleotide array of Claim 72, wherein the control area comprises a control for orienting the carrier, an amplification control, a hybridization control, a sample control, and/or a print control.

76. (Previously Presented) The nucleotide array of Claim 73, wherein the control area comprises a control for orienting the carrier, an amplification control, a hybridization control, a sample control, and/or a print control.

77. (Previously Presented) The nucleotide array of Claim 74, wherein the control area comprises a control for orienting the carrier, an amplification control, a hybridization control, a sample control, and/or a print control.

78. (Previously Presented) The nucleotide array of Claim 75, wherein the control for orienting the carrier comprises at least one second oligonucleotide or nucleic acid molecule.

79. (Previously Presented) The nucleotide array of Claim 76, wherein the control for orienting the carrier comprises at least one second oligonucleotide or nucleic acid molecule.

80. (Previously Presented) The nucleotide array of Claim 77, wherein the control for orienting the carrier comprises at least one second oligonucleotide or nucleic acid molecule.

81. (Previously Presented) The nucleotide array of Claim 78, wherein the second oligonucleotide is a fluorescent oligonucleotide, and the control for orienting the carrier comprises at least three spots of the fluorescent oligonucleotide.

82. (Previously Presented) The nucleotide array of Claim 79, wherein the second oligonucleotide is a fluorescent oligonucleotide, and the control for orienting the carrier comprises at least three spots of the fluorescent oligonucleotide.

83. (Previously Presented) The nucleotide array of Claim 80, wherein the second oligonucleotide is a fluorescent oligonucleotide, and the control for orienting the carrier comprises at least three spots of the fluorescent oligonucleotide.

84. (Previously Presented) The nucleotide array of Claim 81, wherein the amplification control comprises at least one third oligonucleotide or nucleic acid molecule.

85. (Previously Presented) The nucleotide array of Claim 82, wherein the amplification control comprises at least one third oligonucleotide or nucleic acid molecule.

86. (Previously Presented) The nucleotide array of Claim 83, wherein the amplification control comprises at least one third oligonucleotide or nucleic acid molecule.

87. (Previously Presented) The nucleotide array of Claim 84, wherein the third oligonucleotide or nucleic acid molecule is suitable for use as a probe for detecting an amplification product that is obtained by means of an amplification process using a control nucleic acid as the template and a primer pair comprising a forward primer and a reverse primer, wherein the forward primer is selected from the group consisting of:

a) an oligonucleotide that may be used as a primer, in particular a forward primer, to amplify a nucleic acid region of a genital human papilloma virus (HPV) and that has the sequence 5'-CAR GCI AAA WWW KTD AAR GAY TGT G-3' (SEQ ID no. 136) or 5'-CAR GCN AAA WWW KTD AAR GAY TGT G-3' (SEQ ID no. 1), or any of the following sequences:

(i) an oligonucleotide having the nucleotide sequence 5'-CAR GCI AAA TAT KTR AAA GAT TGT G-3' (SEQ ID no. 137) or 5'-CAR GCN AAA TAT KTR AAA GAT TGT G-3' (SEQ ID no. 2),

(ii) an oligonucleotide having the nucleotide sequence 5'-CAR GCA AAA TAT GTW AAG GAT TGT G-3' (SEQ ID no. 3),

(iii) an oligonucleotide having the nucleotide sequence 5'-CAR GCW AAA ATT GTA AAR GAT TGT G-3' (SEQ ID no. 4),

(iv) an oligonucleotide having the nucleotide sequence 5'-CAA GCA AAA ATA GTA AAR GAC TGT G-3' (SEQ ID no. 5),

(v) an oligonucleotide having the nucleotide sequence 5'-CAR GCA

AAA TAT GTA AAA GAC TGT G-3' (SEQ ID no. 6), or

(vi) an oligonucleotide having the nucleotide sequence 5'-ARY GGY

TSY ARC CAA AAR TGR CT-3' (SEQ ID no. 7),

wherein R = A or G, W = T or A, K = T or G, I = inosine, N = A, T, G, or

C, D = A, T, or G, Y = C or T, and S = C or G,

b) an oligonucleotide of a) that has a nucleotide sequence that is mutated

relative to one of the nucleotide sequences recited in SEQ ID nos. 136, 137 or to 2-7, which may be obtained by the:

(i) deletion of 1 to 10 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 7,

(ii) addition of 1 to 10 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 7, and/or

(iii) substitution of 1 to 3 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 7,

c) a mixture of the oligonucleotides of a) and/or b),

and the reverse primer is selected from the group consisting of:

d) an oligonucleotide that may be used as a primer, in particular a reverse primer, to amplify a nucleic acid region of a genital human papilloma virus having the nucleotide sequence 5'-ARY GGY TSY ARC CAA AAR TGR CT-3' (SEQ ID no. 7), wherein R = A or G, Y = C or T, and S = C or G,

e) an oligonucleotide of a) having a nucleotide sequence that is mutated relative to the oligonucleotide of d), and

f) a mixture of the oligonucleotides of d) and e).

88. (Previously Presented) The nucleotide array of Claim 87, wherein the control nucleic acid has a length and a GC content that corresponds to the length and the GC content of the amplification product that is obtained by means of an amplification process using the nucleic acid region of a genital human papilloma virus as the template and the primer pair of Claim 87.

89. (Previously Presented) The nucleotide array of Claim 75, wherein the hybridization control comprises at least one fourth oligonucleotide or nucleic acid molecule.

90. (Previously Presented) The nucleotide array of Claim 89, wherein the hybridization control comprises at least 2 to 10 spots of the fourth oligonucleotide or nucleic acid molecule, and the spots have variously defined amounts of the fourth oligonucleotide or nucleic acid molecule.

91. (Previously Presented) The nucleotide array of Claim 89, wherein the hybridization control comprises spots with a dilution series of the fourth oligonucleotide or nucleic acid molecule.

92. (Previously Presented) The nucleotide array of Claim 75, wherein the sample control comprises at least one fifth oligonucleotide or nucleic acid molecule.

93. (Previously Presented) The nucleotide array of Claim 92, wherein the fifth oligonucleotide or nucleic acid molecule is suitable for use as a probe for detecting the human ADAT1 gene.

94. (Previously Presented) The nucleotide array of Claim 75, wherein the print control comprises at least one sixth oligonucleotide or nucleic acid molecule.

95. (Currently Amended) The nucleotide array of ~~Claims~~ Claim 29, wherein the

oligonucleotides and nucleic acid molecules are embodied as DNA molecules, RNA molecules, PNA molecules, LNA molecules, or hybrid forms thereof.

96. (New) The nucleotide array of Claim 29, in combination with a primer, together as a kit, wherein the primer is selected from the group consisting of:

a) an oligonucleotide that may be used as a primer, in particular a forward primer, to amplify a nucleic acid region of a genital human papilloma virus (HPV) and that has the sequence 5'-CAR GCI AAA WWW KTD AAR GAY TGT G-3' (SEQ ID no. 136) or 5'-CAR GCN AAA WWW KTD AAR GAY TGT G-3' (SEQ ID no. 1), or any of the following sequences:

(i) an oligonucleotide having the nucleotide sequence 5'-CAR GCI AAA TAT KTR AAA GAT TGT G-3' (SEQ ID no. 137) or 5'-CAR GCN AAA TAT KTR AAA GAT TGT G-3' (SEQ ID no. 2),

(ii) an oligonucleotide having the nucleotide sequence 5'-CAR GCA AAA TAT GTW AAG GAT TGT G-3' (SEQ ID no. 3),

(iii) an oligonucleotide having the nucleotide sequence 5'-CAR GCW AAA ATT GTA AAR GAT TGT G-3' (SEQ ID no. 4),

(iv) an oligonucleotide having the nucleotide sequence 5'-CAA GCA AAA ATA GTA AAR GAC TGT G-3' (SEQ ID no. 5), or

(v) an oligonucleotide having the nucleotide sequence 5'-CAR GCA AAA TAT GTA AAA GAC TGT G-3' (SEQ ID no. 6),

wherein R = A or G, W = T or A, K = T or G, I = inosine, N = A, T, G, or C, D = A, T, or G, Y = C or T, and S = C or G,

b) an oligonucleotide of a) that has a nucleotide sequence that is mutated relative to one of the nucleotide sequences recited in SEQ ID nos. 1 to 6, 136, 137 or to , which may be obtained by the:

(i) deletion of 1 to 10 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 6, 136 or 137,

(ii) addition of 1 to 10 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 6, 136 or 137, and/or

(iii) substitution of 1 to 3 nucleotides in one of the nucleotide sequences recited in SEQ ID nos. 1 to 6, 136 or 137,

c) a mixture of the oligonucleotides of a) and/or b),

d) an oligonucleotide that may be used as a primer, in particular a reverse primer, to amplify a nucleic acid region of a genital human papilloma virus having the nucleotide sequence 5'-ARY GGY TSY ARC CAA AAR TGR CT-3' (SEQ ID no. 7), wherein R = A or G, Y = C or T, and S = C or G,

e) an oligonucleotide of a) having a nucleotide sequence that is mutated relative to the oligonucleotide of d), and

f) a mixture of the oligonucleotides of d) and e).